Figures in heavy type preceding page references indicate the parts of *The Advancement of Science* in which references will be found.

Title of communications are frequently abbreviated.

ABERCROMBIE, Dr. M., Cancer as a problem of control of cell movement, **55,** 266
ABERG, F. A., Ancient ploughs and plough irons, **55,** 268, **56,** 368
ADAMS, R. D., Seismic prospecting of the ocean floor, **55,** 263
Aeronautics, advances in, W. H. Stephens, **55,** 268
Ageing, **55,** 270
  and industrial performance, K. F. H. Murrell, S. Griew, **55,** 270
  effects of, on intellectual processes, D. B. Bromley, **55,** 270
  psychological and occupational aspects of, Prof. L. S. Hearnshaw, **55,** 270
Agricultural co-operation and technical progress, Sir Frederick Brundrett, **55,** 201, 273
Agriculture in the National Economy, Role of, Sir James Turner, **54,** 141, **55,** 272
Ancient Agriculture in Ireland and N.W. Europe, **55,** 268, **56,** 365
  Celtic Countries, Rural Patterns in, P. Flatrès, **56,** 371
  discussion, Prof. M. V. Duignan, Prof. E. Evans, Capt. C. O'Danachair, A. T. Lucas, Prof. C. F. C. Hawkes, **56,** 365, 366
  field systems, H. C. Bowen, **55,** 268, **56,** 366
  Irish field systems, V. B. Proudfoot, **55,** 268, **56,** 369
  ploughs and plough irons, F. A. Aberg, **55,** 268, **56,** 368
Ancient Ireland (ii) craftsmanship and art, **55,** 268
  discussion, B. Ó Ríordáin, **55,** 268
  early Christian Irish metalwork, Dr. M. de Paor, **55,** 268
  Irish Bronze Age metal craftsmanship, H. W. M. Hodges, **55,** 268
  method of smelting iron, Prof. M. J. O'Kelly, **55,** 268
Ancient Ireland (i) field archaeology, **55,** 268
  Crannog research, Dr. J. Raftery, **55,** 268
  Mesolithic cultures, G. D. Liversage, **55,** 268
  Tara, Dr. M. de Paor, **55,** 268
ANDERSON, Sir David, Education and Training for Engineering Industry, **54,** 80, **55,** 267
ANDERSON, Prof. J. G. C., Moinian and Dalradian—S. Mayo to S. Donegal, **55,** 265
ANDREWS, Dr. J. H., Seventeenth-century records of Irish landscape, **55,** 267
ANGUS, N. S., Granite-Diorite complex in Tyrone igneous series, **55,** 265
Animal behaviour, films on, **55,** 266
  aggressive displays of birds, Dr. Stuart Smith, G. Edwards, E. Hosking, **55,** 266
  black-headed gull, begging response of chicks, Dr. N. Tinbergen, **55,** 266
  Madingley, Work of Cambridge University Ornithological Field Station, Dr. W. H. Thorpe, **55,** 266
Animal health in relation to Britain's food supplies, J. N. Ritchie, **55,** 273, **57,** 431
ANNETT, J., Perceptual organisation in simple skills, **55,** 270, **57,** 462
ANTHONY, S. W., Reasoning in rats, **55,** 270
Archaeology as Science : Purposes and Pitfalls, Prof. C. F. C. Hawkes, **54,** 92, **55,** 268
ARREGGER, Mrs. C. E., Training of women and girls for scientific, technological and technical work—present situation and future steps, **55,** 272
Artificial satellites, Dr. E. J. Öpik, **55,** 263
Assembly of Corresponding Societies, **55,** 228
Astronomical problems, application of photo-electronic devices to, Prof. J. D. McGee, **55,** 263
Atomic Power Development in India and the Indian Atomic Energy Programme, economics of, Dr. H. J. Bhabha, **55,** 159
Attitudes, measurement of, A. E. Maxwell, **55,** 270
AUDLEY, Dr. R. J., Probability models for description of learning behaviour, **55,** 270
AUDUS, Prof. L. J., Growth substances in root growth, **55,** 271

BAKER, J. W., Metamorphic rocks of S.E. Co. Wexford, **55,** 265
Balance-of-payments Problem of a European Free-trade Area, Prof. J. E. Meade, **54,** 68, **55,** 267
BAMFORD, Dr. C. H., Synthetic polypeptides as models for natural proteins, **55,** 264
BARLOW, H. W. B., Hormones and fruit tree growth, **55,** 271
BATEMAN, Dr. L., Mechanico-chemistry of polymers, **55,** 264
BATESON, Miss C., Israeli Kibbutz, **55,** 271
BENNET-CLARK, Prof. T. A., Hormones in tropic responses of shoots, **55,** 271
BHABHA, Dr. H. J., Economics of Atomic Power Development in India and the Indian Atomic Energy Programme, **55,** 159
Bilingualism, **55,** 272, **56,** 282
  educational aspects, Rev. Prof. E. F. O'Doherty, **55,** 272, **56,** 282
  educational policy, implementation of, Sir Ben Bowen Thomas, **55,** 272, **56,** 282
  psychological aspects, J. R. Morrison, **55,** 272, **56,** 287
Biogenesis of natural products, **55,** 264
  acetic acid as a building unit in the formation of mould products, Prof. S. J. Birch, **55,** 264
  of flavonoids, Prof. T. S. Wheeler, **55,** 264
  of natural products, Prof. T. R. Seshadri, **55,** 264
  of sterols, Dr. G. J. Popják, **55,** 264
  or structural relations : the organic chemist's contribution, Sir Robert Robinson, **55,** 264
BIRCH, Prof. A. J., Acetic acid as a building unit in the formation of mould products, **55,** 264
Bird watching in Dublin Bay, Rev. P. G. Kennedy, **55,** 273
BLACKETT, Prof. P. M. S., Technology and World Advancement, **54,** 3
BLASCHKO, Dr. H., Metabolism of adrenaline and noradrenaline, **55,** 269
BOOTH, Dr. A. D., Computing in the modern world, **55,** 268
BOSSIO, Miss V., Learning difficulties of deprived children, **55,** 270
BOSWELL, Prof. P. G. H., Intraformational disturbances, **55,** 265
BOWEN, H. C., Ancient field systems, **55,** 268, **56,** 366
BOYD, Dr. R. L. F., Solar radiation from rockets, **55,** 263
Brachiopod migration during Ordovician times, Prof. A. Williams, **55,** 265
BRIAN, Dr. P. W., Plant hormones, **55,** 264, **56,** 339
BRINDLEY, Prof. J. C., Geology of south-east Ireland : Pre-Cambrian to Devonian, Leinster Pluton and associated granite rocks, **55,** 264
British Industry, European Common Market and, H. H. Liesner, **55,** 215
BROADBENT, D. E.,
  Role of attention in skill, **55,** 270, **57,** 460
  Perceptual experiments using synthetic speech, **55,** 270

Figures in heavy type preceding page references indicate the parts of *The Advancement of Science* in which references will be found.

Title of communications are frequently abbreviated.

ABERCROMBIE, Dr. M., Cancer as a problem of control of cell movement, **55,** 266
ABERG, F. A., Ancient ploughs and plough irons, **55,** 268, **56,** 368
ADAMS, R. D., Seismic prospecting of the ocean floor, **55,** 263
Aeronautics, advances in, W. H. Stephens, **55,** 268
Ageing, **55,** 270
  and industrial performance, K. F. H. Murrell, S. Griew, **55,** 270
  effects of, on intellectual processes, D. B. Bromley, **55,** 270
  psychological and occupational aspects of, Prof. L. S. Hearnshaw, **55,** 270
Agricultural co-operation and technical progress, Sir Frederick Brundrett, **55,** 201, 273
Agriculture in the National Economy, Role of, Sir James Turner, **54,** 141, **55,** 272
Ancient Agriculture in Ireland and N.W. Europe, **55,** 268, **56,** 365
  Celtic Countries, Rural Patterns in, P. Flatrès, **56,** 371
  discussion, Prof. M. V. Duignan, Prof. E. Evans, Capt. C. O'Danachair, A. T. Lucas, Prof. C. F. C. Hawkes, **56,** 365, 366
  field systems, H. C. Bowen, **55,** 268, **56,** 366
  Irish field systems, V. B. Proudfoot, **55,** 268, **56,** 369
  ploughs and plough irons, F. A. Aberg, **55,** 268, **56,** 368
Ancient Ireland (ii) craftsmanship and art, **55,** 268
  discussion, B. Ó Ríordáin, **55,** 268
  early Christian Irish metalwork, Dr. M. de Paor, **55,** 268
  Irish Bronze Age metal craftsmanship, H. W. M. Hodges, **55,** 268
  method of smelting iron, Prof. M. J. O'Kelly, **55,** 268
Ancient Ireland (i) field archaeology, **55,** 268
  Crannog research, Dr. J. Raftery, **55,** 268
  Mesolithic cultures, G. D. Liversage, **55,** 268
  Tara, Dr. M. de Paor, **55,** 268
ANDERSON, Sir David, Education and Training for Engineering Industry, **54,** 80, **55,** 267
ANDERSON, Prof. J. G. C., Moinian and Dalradian—S. Mayo to S. Donegal, **55,** 265
ANDREWS, Dr. J. H., Seventeenth-century records of Irish landscape, **55,** 267
ANGUS, N. S., Granite-Diorite complex in Tyrone igneous series, **55,** 265
Animal behaviour, films on, **55,** 266
  aggressive displays of birds, Dr. Stuart Smith, G. Edwards, E. Hosking, **55,** 266
  black-headed gull, begging response of chicks, Dr. N. Tinbergen, **55,** 266
  Madingley, Work of Cambridge University Ornithological Field Station, Dr. W. H. Thorpe, **55,** 266
Animal health in relation to Britain's food supplies, J. N. Ritchie, **55,** 273, **57,** 431
ANNETT, J., Perceptual organisation in simple skills, **55,** 270, **57,** 462
ANTHONY, S. W., Reasoning in rats, **55,** 270
Archaeology as Science : Purposes and Pitfalls, Prof. C. F. C. Hawkes, **54,** 92, **55,** 268
ARREGGER, Mrs. C. E., Training of women and girls for scientific, technological and technical work—present situation and future steps, **55,** 272
Artificial satellites, Dr. E. J. Öpik, **55,** 263
Assembly of Corresponding Societies, **55,** 228
Astronomical problems, application of photo-electronic devices to, Prof. J. D. McGee, **55,** 263
Atomic Power Development in India and the Indian Atomic Energy Programme, economics of, Dr. H. J. Bhabha, **55,** 159
Attitudes, measurement of, A. E. Maxwell, **55,** 270
AUDLEY, Dr. R. J., Probability models for description of learning behaviour, **55,** 270
AUDUS, Prof. L. J., Growth substances in root growth, **55,** 271

BAKER, J. W., Metamorphic rocks of S.E. Co. Wexford, **55,** 265
Balance-of-payments Problem of a European Free-trade Area, Prof. J. E. Meade, **54,** 68, **55,** 267
BAMFORD, Dr. C. H., Synthetic polypeptides as models for natural proteins, **55,** 264
BARLOW, H. W. B., Hormones and fruit tree growth, **55,** 271
BATEMAN, Dr. L., Mechanico-chemistry of polymers, **55,** 264
BATESON, Miss C., Israeli Kibbutz, **55,** 271
BENNET-CLARK, Prof. T. A., Hormones in tropic responses of shoots, **55,** 271
BHABHA, Dr. H. J., Economics of Atomic Power Development in India and the Indian Atomic Energy Programme, **55,** 159
Bilingualism, **55,** 272, **56,** 282
  educational aspects, Rev. Prof. E. F. O'Doherty, **55,** 272, **56,** 282
  educational policy, implementation of, Sir Ben Bowen Thomas, **55,** 272, **56,** 282
  psychological aspects, J. R. Morrison, **55,** 272, **56,** 287
Biogenesis of natural products, **55,** 264
  acetic acid as a building unit in the formation of mould products, Prof. S. J. Birch, **55,** 264
  of flavonoids, Prof. T. S. Wheeler, **55,** 264
  of natural products, Prof. T. R. Seshadri, **55,** 264
  of sterols, Dr. G. J. Popják, **55,** 264
  or structural relations : the organic chemist's contribution, Sir Robert Robinson, **55,** 264
BIRCH, Prof. A. J., Acetic acid as a building unit in the formation of mould products, **55,** 264
Bird watching in Dublin Bay, Rev. P. G. Kennedy, **55,** 273
BLACKETT, Prof. P. M. S., Technology and World Advancement, **54,** 3
BLASCHKO, Dr. H., Metabolism of adrenaline and noradrenaline, **55,** 269
BOOTH, Dr. A. D., Computing in the modern world, **55,** 268
BOSSIO, Miss V., Learning difficulties of deprived children, **55,** 270
BOSWELL, Prof. P. G. H., Intraformational disturbances, **55,** 265
BOWEN, H. C., Ancient field systems, **55,** 268, **56,** 366
BOYD, Dr. R. L. F., Solar radiation from rockets, **55,** 263
Brachiopod migration during Ordovician times, Prof. A. Williams, **55,** 265
BRIAN, Dr. P. W., Plant hormones, **55,** 264, **56,** 339
BRINDLEY, Prof. J. C., Geology of south-east Ireland : Pre-Cambrian to Devonian, Leinster Pluton and associated granite rocks, **55,** 264
British Industry, European Common Market and, H. H. Liesner, **55,** 215
BROADBENT, D. E.,
  Role of attention in skill, **55,** 270, **57,** 460
  Perceptual experiments using synthetic speech, **55,** 270

BROMLEY, D. B., Effects of age on intellectual processes, **55,** 270
BROWN, Prof. Sir Lindor, Chemical Transmission at Nerve Endings, **54,** 103, **55,** 269
BRUNDRETT, Sir Frederick, Agricultural co-operation and technical progress, **55,** 201, 273
BUCHANAN, R. H., Irish Townland, 1890–1955, rural change in, **55,** 267, **56,** 291
BUCK, L., Effectiveness of group wage incentives, **55,** 270
BUNN, Dr. C. W., Plastics for use : designing molecules for particular purposes, **55,** 264

CAINE, Sir Sidney, Education for Development, **55,** 191
CAIRD, Dr. J. R., South Uist : Scottish congested district, **55,** 267
Caledonian Granites, **55,** 264
  Caledonian series, Prof. H. H. Read, **55,** 264
  Donegal series, Prof. H. H. Read, **55,** 264
  Leinster Pluton and associated granitic rocks, Prof. J. C. Brindley, **55,** 264
  Mount Leinster district, plutonic geology of, K. Coe, **55,** 264
Cancer, biological aspects of, **55,** 266
  carcinogens, reaction of cell membrane of Amoeba proteus with, Dr. R. J. Goldacre, **55,** 266
  chromosome variation and cell polymorphism in malignant growth, Prof. P. C. Koller, **55,** 266
  electron microscope and, Dr. E. H. Mercer, **55,** 266
  general biology of, Prof. A. Haddow, **55,** 266
  and hormones, Prof. E. S. Horning, **55,** 266
  as a problem of cell differentiation, Dr. A. Glucksmann, **55,** 266
  as a problem of control of cell movement, Dr. M. Abercrombie, **55,** 266
  specificity of normal and malignant cells, Dr. G. C. and Dr. D. M. Easty, **55,** 266
Cancer, chemical approaches to the investigation of lung, Dr. J. W. Cook, **54,** 23, **55,** 264
Carboniferous stratigraphical palaeontology, **55,** 265
  of Irish midlands, Dr. W. E. Nevill, **55,** 265
  Coelacanth fishes of Ireland, Dr. J. S. Jackson, **55,** 265
  Dinantian, faunal subdivisions of, Dr. R. G. S. Hudson, **55,** 265
  Visean facies and zones, Prof. T. Neville George, **55,** 265
CARLISLE, Dr. D. B., Neuro-humoral control of heart in crustaceans, **55,** 269
CARTER, Prof. C. F., Science and Industry Committee, summary of conclusions of report, **55,** 267
CARTER, Dr. T. C., Levels of radioactivity and mutation in man, **55,** 271
CASEY, Rev. Dr. M. T., Science in Irish schools, **55,** 273
CATCHESIDE, Prof. D. G., Recent advances in yeast genetics, **55,** 271
Chemical approaches to the Investigation of Lung Cancer, Dr. J. W. Cook, **54,** 23, **55,** 264
Chemical transmission in invertebrates and vertebrates, **55,** 269
  autonomic transmitters on vertebrate heart, Dr. O. F. Hutter, **55,** 269
  chemical transmitter at adrenergic nerve endings, Dr. J. S. Gillespie, **55,** 269
  inhibitory action in crustacean muscle and vertebrate central nervous system, Dr. P. Fatt, **55,** 269
  neuro-humoro control of heart in crustaceans, Dr. D. B. Carlisle, **55,** 269
Chemical transmission, liberation of, **54,** 103, **55,** 269
  in central nervous system, Dr. Catherine O. Hebb, **55,** 269
  at nerve endings, Prof. Sir Lindor Brown, **54,** 103, **55,** 269
  metabolism of adrenaline and nor-adrenaline, Dr. H. Blaschko, **55,** 269
Chemistry in the service of agriculture, **55,** 264, **56,** 333
  fertiliser industry in Ireland, J. W. Parkes, **55,** 264, **56,** 336
  plant hormones, Dr. P. W. Brian, **55,** 264, **56,** 339
  in production, role of, A. W. Marsden, **55,** 264, **56,** 333
  soil fertility, chemical evaluation of, Dr. T. Walsh, **55,** 264, **56,** 335
CHERNS, A. B., Social factors in training of R.A.F. boy entrants, **55,** 270
CLEAR, T., Growing stock for forest management, **55,** 272
CLINCH, Dr. P., Viruses, **55,** 272
COE, K., Plutonic geology of Mount Leinster district, **55,** 264
COLE, Dr. Monica, Savannas of Brazil, **55,** 267
Colonial territories, fisheries development in, Dr. C. F. Hickling, **55,** 266, **56,** 317
Computing in the modern world, Dr. A. D. Booth, **55,** 268
Conifer Embryology, Aspects and Problems of, Prof. J. Doyle, **54,** 120, **55,** 271
Consciousness in subnormals, Dr. C. J. C. Earl, **55,** 270
CONWAY, Prof. E. J., Energy and form in living cell, **55,** 269
  Cell structure and function in yeast, **55,** 271
COOK, Dr. J. W., Chemical approaches to the investigation of lung cancer, **54,** 23, **55** 264
COPE, Dr. R. N., Silurian sedimentation and faunas in northern Co. Tipperary, **55,** 265
Cosmic rays from the sun, Dr. H. Elliott, **55,** 263
COSTELLO, General M. J., Possibilities of development in Ireland, **55,** 267
Council's Report to General Committee, 1956–57, **55,** 246
Countryman, Education of the, L. R. Missen, **54,** 131, **55,** 272
COUSENS, S. H., Pioneer fringe in Ireland after great famine, **55,** 267
COWLING, Prof. T. G., Stellar Energy and Stellar Evolution, **54,** 13, **55,** 263
Crab nebula, Recent work on, Dr. F. D. Kahn, **55,** 263
CRANLEY, M., Technical and technological education in Dublin, **55,** 272
Crop conservation practice, J. O'Callaghan, **55,** 268
Crystal lattices, applications of elementary mathematics to the theory of, Dr. M. A. Jaswon, **55,** 263
CULPIN, C., Development in equipment for green fodder conservation, **55,** 268
CURRALL, Dr. A. E., Dalradian sequences of S.W. end of Ox Mountains, **55,** 265

Dairy Cow, development of, Dr. A. Stewart, **55,** 273
DAVIDSON, Miss M. A., Psychologist in Health Services, **55,** 270
DAVIES, Dr. G. L., Irish erosion surfaces—statistical analysis, **55,** 267, **56,** 385
DAVIES, Dr. R., Biochemistry of yeast fermentation, **55,** 271, **57,** 401
DAVIS, R., Channelling of auditory and visual information, **55,** 270, **57,** 458
DEITZ, Dr. Robert S., Deep-sea research by bathyscaph, **55,** 263
DELARGY, Prof. J. H., Folklore studies in these islands [discussion], **55,** 269
DEMPSEY, Dr. P. J. R., Projective test of insight, **55,** 269
DICKSON, Alec, Technical assistance and idealism, **55,** 177, 272
DILLON, Prof. M., Indo-European and pre-Indo-European elements in Irish, **55,** 269
DOOGE, J. C. I., Irish contributions to rainfall-runoff studies, **55,** 267
DOYLE, Prof. J., Conifer Embryology, aspects and problems of, **54,** 120, **55,** 271
Dublin Meeting, **55,** 153
  Officers at, **55,** 237
Dublin region, **55,** 266
  geomorphology of, Dr. A. Farrington, **55,** 266
  region, J. P. Haughton, **55,** 266
DUIGNAN, Prof. M. V., Ancient agriculture in Ireland and N.W. Europe, **55,** 268, **56,** 365
DUMAS, F., Underwater swimming and diving, **55,** 269
DUNNING, Rev. T. P., Development of vocational education in Ireland, **55,** 272

EARL, Dr. C. J. C., Consciousness in subnormals, **55,** 270
EASTY, Dr. G. C. and Dr. D. M., Specificity of normal and malignant cells, **55,** 266
ECCLES, Sir Josiah, Energy and power supply, **55,** 267
Economic development, problems of, **55,** 267
  Caribbean, Prof. E. Nash, **55,** 267
  obstacles in S. Asia, India, Pakistan, and Ceylon, Mrs. U. K. Hicks, **55,** 267
  possibilities in Ireland, General M. J. Costello, **55,** 267
  underdeveloped countries, A. D. Knox, **55,** 267, **56,** 341
Economic incentives, J. Meenan, **55,** 267
Education as a science, Dr. T. Renshaw, **55,** 270
Education for Development, Sir Sidney Caine, **55,** 191

Education of the Countryman, L. R. Missen, **54,** 131, **55,** 272
Education, science and the cultural background of, **55,** 272, **56,** 301
  science in, Prof. J. J. McHenry, **55,** 272, **56,** 301
  Sixth Form's contribution to contemporary society, R. R. Hancock, **55,** 272, **56,** 301
Education and training, *see* Social concomitants of achievement in
EDWARDS, G., Aggressive displays of some birds, **55,** 266
Electric traction, recent trends, R. S. Wignall, **55,** 268
Electrolyte exchange in cells, **55,** 269
  energy and form in living cell, Prof. E. J. Conway, **55,** 269
  ion transport in mitochondria, Dr. M. G. Harrington, **55,** 269
  metabolism, hormonal control of, Dr. D. Hingerty, **55,** 269
Element 102, H. A. C. McKay, Dr. J. Milsted, **55,** 264
ELLIOT, Dr. H., Cosmic rays from the sun, **55,** 263
ELSDEN, Dr. S. R., Photosynthetic bacteria, **55,** 272
ELVIN, Prof. L., Fundamental education and adaptation to modern way of life, **55,** 272
Endeavour essay, Miss R. J. A. Kirkland, **56,** 353
Energy and power supply, Sir Josiah Eccles, **55,** 267
Engineering Industry, Education and Training for, Sir David Anderson, **54,** 80, **55,** 267
Engineering problems associated with heat transfer, Prof. O. A. Saunders, **55,** 267
Equivalent circuits, D. J. Rowley, **55,** 268
European Common Market and British Industry, H. H. Liesner, **55,** 215, 267
European free-trade area, balance of payments problem, Prof. J. E. Meade, **54,** 68, **55,** 267
EVANS, Prof. Estyn, Ancient agriculture in Ireland and N.W. Europe, **56,** 365
Everlasting Hills, Prof. D. L. Linton, **54,** 58, **55,** 267

Farm organisation, influence of machinery development on, O. Paterson, **55,** 268
FARRINGTON, Dr. A., Geomorphology of Dublin region, **55,** 266
FATT, Dr. P., Inhibitory action in crustacean muscle and vertebrate central nervous system, **55,** 269
Field studies, Prof. J. Heslop-Harrison, **55,** 273
Field systems, ancient Irish, Dr. V. B. Proudfoot, **55,** 268, **56,** 369
FISHER, Prof. E. M., Economic aspects of urban land use, **55,** 267
Fisheries development in colonial territories, Dr. C. F. Hickling, **55,** 266, **56,** 317
Fishes in Irish history, Dr. A. E. J. Went, **55,** 273
FLATRÈS, Pierre, Rural Patterns in Celtic Countries, **56,** 371
Flavonoids, biogenesis of, Prof. T. S. Wheeler, **55,** 264
FLECK, Sir Alexander, Installation address, **56,** 277
FLORIN, Prof. R., Systematics of podorarpaceae, **55,** 271
FOGG, Dr. G. E., Actual and potential yields in photosynthesis, **55,** 272, **57,** 395
Folk culture and the people, G. B. Thompson, **55,** 273
Folklore studies, **55,** 268, 269
  discussion, Prof. J. H. Delargy, **55,** 269
  in England and Wales, P. Opie, **55,** 269
  in Ireland and Isle of Man, S. Ó Sullivan, **55,** 268
  in Scotland, S. F. Sanderson, **55,** 269
  in Wales, Dr. I. C. Peate, **55,** 269
Food processing and canning, Dr. J. Hawthorn, **55,** 268
Forest management and silviculture in underdeveloped areas, **55,** 272
  aerial photography and, D. A. Francis, **55,** 272
  growing stock, survey and assessment of, T. Clear, **55,** 272
  yield regulation and forecasts of production, Dr. F. C. Hummel, **55,** 272
Forestry, economics of, **55,** 272
  in management, W. E. Hiley, **55,** 272
  Pinus contorta, O. V. Mooney, **55,** 272
  timber extraction, roads for, E. R. Huggard, **55,** 272
Forestry in Ireland, T. McEvoy, **55,** 272
Fowler, A., Kinbane volcano, **55,** 265
FRANCIS, D. A., Aerial photography and forestry, **55,** 272
FREEMAN, T. W., Population decline and landscape change in rural Ireland, **55,** 267
  Modern land use problems in Ireland, **55,** 273
FRISBY, Dr. C. B., Psychologist in industry, **55,** 270
Functions of British Association, second report on, **55,** 255
Fundamental education, **55,** 272
  adaptation to modern way of life, Prof. L. Elvin, **55,** 272
  idealism and technical assistance, A. Dickson, **55,** 177, 272

GALLIVAN, J. D., Rev. Dr. Callam of Maynooth, **55,** 273
GANGULI, Mrs. Gouri, New Zealand glow-worm, **55,** 266
GATENBY, Prof. J. Brontë, New Zealand glow-worm, **55,** 266
Geomorphology of Ireland, **55,** 267
  See also Ireland, physiographic evolution, **56,** 381
GEORGE, Prof. T. Neville, Visean facies and zones, **55,** 265
GILL, Prof. W. D., Geology of Eastern Ireland : Carboniferous and post-Carboniferous, **55,** 264
  slumping and sedimentation in Namurian of Co. Clare, **55,** 265
GILLESPIE, Dr. J. S., Release and subsequent inactivation of chemical transmitter at adrenergic nerve endings, **55,** 269
GILLILAND, R. B., Yeast biology in relation to fermentation techniques, **55,** 271
GLUCKSMANN, Dr. A., Cancer as a problem of cell differentiation, **55,** 266
GOLDACRE, Dr. R. J., Reaction of cell membrane of Amoeba proteus with carcinogens, **55,** 266
GORDON, Prof. R. M., Migrations of parasitic helminths, **55,** 266
GORMAN, Prof. M. J., Effect of biotic factors on natural and semi-natural grassland, **55,** 272
Grasslands, ecology of, **55,** 272
  effect of biotic factors on natural and semi-natural, Prof. M. J. Gorman, **55,** 272
  in British Isles, genetical and ecological variation in components, Dr. C. E. Hubbard, **55,** 272
  Nardus stricta, Dr. J. King, **55,** 272
  pasture-animal relationship on hill grazings, Dr. R. F. Hunter, **55,** 272
Gravitation today, Prof. J. L. Synge, **55,** 207, 263
Green fodder conservation, development in equipment, C. Culpin, **55,** 268
GREENE, Prof. D., Irish literary evidence, **55,** 269
GREENE, Dr. J. N., Irish agriculture, survey with reference to its interdependence with British agriculture, **55,** 273, **56,** 374
GRIEW, S., Age and industrial performance, **55,** 270

HACKETT, Dr. E., Irish blood-group studies, **55,** 269
HADDOW, Prof. A., General biology of cancer, **55,** 266
HAGGETT, P., Industrial concentration v. regional stability, **55,** 267
HALSEY, R. J., Developments in tele-communications, **55,** 268
HAMILTON, William Rowan, Dr. A. J. McConnell, **55,** 264, **56,** 323
HAMMERSLEY, J. M., Percolation processes, **55,** 263
HANCOCK, R. R., Sixth Form's contribution to contemporary society, **55,** 272, **56,** 301
HARPER, Dr. J. C., Age of Ordovician vulcanicity in eastern Ireland, **55,** 265
HARRINGTON, Dr. M. G., Ion transport in mitochondria, **55,** 269
HARRIS, A. L., Metamorphic zones in Perthshire, **55,** 265
HARRISON, Prof. J. Heslop, Auxin and flower sexuality, **55,** 271
  novel fields for field studies, **55,** 273
HAUGHTON, J. P., Dublin and its region, **55,** 266
HAWKES, Prof. C. F. C., Ancient agriculture in Ireland and N.W. Europe, **56,** 365
  Archaeology as science : purposes and pitfalls, **54,** 92, **55,** 268
  making of Irish people, **55,** 269
HAWTHORN, Dr. J., Food processing and canning, **55,** 268
HEARNSHAW, Prof. L. S., Psychological and occupational aspects of ageing, **55,** 270
Heat transfer, engineering problems, Prof. O. A. Saunders, **55,** 267
HEBB, Dr. Catherine O., Chemical transmission in central nervous system, **55,** 269
HEMINGWAY, Dr. J. E., Torridonian sedimentation and sedimentary structures, **55,** 265

HICKLING, C. F., Fisheries development in colonial territories, **55**, 266, **56**, 317
HICKS, Mrs. U. K., Obstacles to economic development in S. Asia, India, Pakistan and Ceylon, **55**, 267
HILEY, W. E., Economics in forest management, **55**, 272
HINGERTY, Dr. D., Hormonal control of electrolyte metabolism, **55**, 269
HODGES, H. W. M., Irish Bronze Age metal craftsmanship, **55**, 268
HOGAN, Prof. M. A., Mining development in Ireland, **55**, 267
HORNING, Prof. E. S., Hormones and cancer, **55**, 266
HOSKING, E., Aggressive displays of birds, **55**, 266
HOWIE, D. I. D., Spawning stimulus in marine annelid worms, **55**, 266
HUBBARD, Dr. C. E., Genetical and ecological variation of components of grasslands in British Isles, **55**, 272
HUDSON, Dr. R. G. S., Faunal subdivisions of Dinantian, **55**, 265
HUGGARD, E. R., Roads for economic timber extraction, **55**, 272
Human ecology and nature conservation, M. Ó Ruadháin, **55**, 273
HUMMEL, Dr. F. C., Forest management—yield regulation and forecasts of production, **55**, 272
HUNTER, Dr. R. F., Pasture-animal relationship on hill grazings, **55**, 272
HUTTER, Dr. O. F., Action of autonomic transmitters on vertebrate heart, **55**, 269

India and the Indian atomic energy programme, economics of atomic power development in, Dr. H. J. Bhabha, **55**, 159
Industry, incentives and communications, **55**, 270
  decision-taking and presentation of information, R. Sergean, **55**, 270
  group wage incentives, L. Buck, **55**, 270
  incentive payment systems, Miss S. B. N. Shimmin, **55**, 270
  introduction, C. A. Oakley, **55**, 270
Industry and technical progress, **55**, 261
Infant animal, **55**, 269, **57**, 417
  nutrition of early weaned calf, Dr. J. H. B. Roy, **55**, 269, **57**, 428
  of young pigs, I. A. M. Lucas, G. A. Lodge, **55**, 269, **57**, 425
  physiology of, Dr. R. A. McCance, Dr. E. M. Widdowson, **55**, 269, **57**, 417
Installation address, Sir Alexander Fleck, **56**, 277
Ireland, Carboniferous Coelacanth fishes of, Dr. J. S. Jackson, **55**, 265
Ireland, education in, **55**, 272
  for commerce and management, S. O'Ceallaigh, **55**, 272
  development of vocational education, Rev. T. P. Dunning, **55**, 272
  technical and technological education in Dublin, M. Cranley, **55**, 272
Ireland, folk-life, **55**, 268
  discussion, Dr. I. C. Peate
  horn and corn, A. T. Lucas, **55**, 268
  house and farmyard, C. Ó Danachair, **55**, 268
  Murphystown, J. H. Johnson, **55**, 268
Ireland, forestry in, T. McEvoy, **56**, 307
Ireland, geography of, historical studies, **55**, 267
  East Leinster in mid-19th century, T. Jones-Hughes, **55**, 267
  rural change in an Irish townland, R. H. Buchanan, **55**, 267, **56**, 291
  seventeenth-century records of Irish landscape, Dr. J. H. Andrews, **55**, 267
Ireland, geography of, population studies, **55**, 267
  immigration to England and Wales, R. Lawton, **55**, 267
  pioneer fringe, S. H. Cousens, **55**, 267
  population decline and landscape change, T. W. Freeman, **55**, 267
  South Uist, Dr. Joy Tivy, Dr. J. R. Caird, **55**, 267
Ireland, geology, **55**, 264
  Carboniferous and post-Carboniferous, Prof. W. D. Gill, **55**, 264
  economic, M. V. O'Brien, **55**, 264, **56**, 349
  Pre-Cambrian to Devonian, Prof. J. C. Brindley, **55**, 264
Ireland, land use problems in, T. W. Freeman, **55**, 273
Ireland, mining development in, Prof. M. A. Hogan, **55**, 267
Ireland, physiographic evolution, **56**, 381
  See also geomorphology of Ireland, **55**, 267
  erosion surfaces—statistical analysis, G. L. Davies, **55**, 267, **56**, 385
  evolution of north-east coastline, N. Stephens, **55**, 267, **56**, 389
  Irish Sea area, structure of, J. B. Whittow, **55**, 267, **56**, 381
  peat and peat-soils, V. B. Proudfoot, **55**, 267
Ireland, Pre-Cambrian rocks, **55**, 265
  Connemara schists, Prof. R. M. Shackleton, **55**, 265
  Dalradian rocks in N.W. Donegal, Dr. W. S. Pitcher, **55**, 265
  Dalradian sequences, Dr. A. E. Currall, **55**, 265
  Metamorphic rocks, J. W. Baker, **55**, 265
  Moinian and Dalradian, Prof. J. G. C. Anderson, **55**, 265
Ireland, meeting of Statistical and Social Inquiry Society, **55**, 267
Irish agriculture, Dr. J. N. Greene, **55**, 273, **56**, 374
Irish blood-group studies, Dr. E. Hackett, **55**, 269
  discussion, Prof. E. Keenan, **55**, 269
Irish flora, historical background, **55**, 271
  Atlantic species, Prof. D. A. Webb, **55**, 271
  English glacial and interglacial periods and vegetation, Dr. R. G. West, **55**, 271
  interglacial deposits of Gort, Prof. K. Jessen, **55**, 271
  at Kilbeg and Newtown, W. A. Watts, **55**, 271
Irish people, making of, **55**, 269
  archaeological evidence, Dr. E. MacWhite, **55**, 269
  Celts and classical historians, Prof. J. J. Tierney, **55**, 269
  discussion and summing up, Prof. C. F. C. Hawkes, **55**, 269
  Indo-European and pre-Indo-European elements, Prof. M. Dillon, **55**, 269
  literary evidence, Prof. D. Greene, **55**, 269

JACKSON, Dr. J. S., Carboniferous Coelacanth fishes of Ireland, **55**, 265
JASWON, Dr. M. A., Crystal lattices, applications of elementary mathematics to, **55**, 263
JESSEN, Prof. K., Interglacial deposits of Gort, **55**, 271
JOHNSON, J. H., Murphystown, **55**, 268
JONES-HUGHES, T., East Leinster in mid-19th century, **55**, 267

KAHN, Dr. F. D., Recent work on the Crab nebula, **55**, 263
KEENAN, Prof. E., Irish blood-group studies, **55**, 269
KENNEDY, Rev. P. G., Bird watching in Dublin Bay, **55**, 273
Kinbane volcano, A. Fowler, **55**, 265
KING, Dr. J., Ecology of Nardus stricta, **55**, 272
KIRKLAND, Miss R. J. A., Particles in plant and animal cells, **56**, 353
KLÜBER, Dr. H. von, Solar magnetograph, **55**, 263
KNOX, A. D., Underdeveloped countries: some aspects of their problems, **55**, 267, **56**, 341
KOLLER, Prof. P. C., Chromosome variation and cell polymorphism in malignant growth, **55**, 266

LADEFOGED, P., Perceptual experiments using synthetic speech, **55**, 270
LANCZOS, Prof. C., Striving for rigour in Greek science, **55**, 263
LAUGHTON, Dr. A. S., Exploration of the ocean floor by echo-sounder and camera, **55**, 263
LAVERTY, Dr. S. G., Sodium amytal and extraversion, **55**, 269
LAWSON, J. D., Nuclear fusion as possible source of power, **55**, 263
LAWTON, R., Irish immigration to England and Wales, **55**, 267
Learning behaviour, probability models for description of, Dr. R. F. Audley, **55**, 270
LEE, J. A. N., Stiffening effects of two-edge beams on right slab bridge, **55**, 268
LEMASS, Seán, Discussion of report of Science and Industry Committee, **55**, 267
LEONARD, Dr. J. A., Stimulus characteristics for visual tasks, **55**, 270
LIESNER, H. H., European Common Market and British Industry, **55**, 215, 267
LINTON, Prof. D. L., Everlasting Hills, **54**, 58, **55**, 267
LITTLE, I. M. D., Economist in Whitehall, **55**, 267

LIVERSAGE, G. D., Mesolithic cultures of Ireland, **55,** 268
LODGE, G. A., Nutrition of young pigs, **55,** 269, **57,** 425
LUCAS, A. T., Ancient agriculture in Ireland and N.W. Europe, **56,** 365
folk culture and the people (discussion), **55,** 273
horn and corn in Ireland, **55,** 268
LUCAS, I. A. M., Nutrition of young pigs, **55,** 269, **57,** 425

MCCANCE, Dr. R. A., Physiology of new-born animal, **55,** 269, **57,** 417
MCCONNELL, Dr. A. J., Hamilton and his contribution to mathematics, **55,** 264, **56,** 323
MCEVOY, T., Forestry in Ireland, **55,** 272, **56,** 307
MCGEE, Prof. J. D., Application of photo-electronic devices to astronomical problems, **55,** 263
MCHENRY, Prof. J. J., Science and cultural background of education, **55,** 272, **56,** 301
MCKAY, H. A. C., Element 102, **55,** 264
MCKENNA, Dr. J., Psychologist in child guidance service, **55,** 270
MACKLIN, W., Cloud seeding experiments in Australia, **55,** 263
MACWHITE, Dr. E., Archaeological evidence, **55,** 269
MARK, Prof. H. F., Stereospecific polymerisations, **55,** 264
MARSDEN, A. W., Chemistry in service of agriculture, **55,** 264, **56,** 333
MASON, Dr. B. J., Physics of rain and rain-making, **55,** 263
Mathematics, history of, **55,** 263, 264
Greek science, striving for rigour, Prof. C. Lanczos, **55,** 263
Hamilton and his contribution, Dr. A. J. McConnell, **55,** 264, **56,** 323
step functions, Prof. P. M. Quinlan, **55,** 264
MAULE, Dr. H. G., Worker and his work, **54,** 109, **55,** 270
MAXWELL, A. E., Measurement of attitudes, **55,** 270
MEADE, Prof. J. E., Balance-of-payments problem of a European free-trade area, **54,** 68, **55,** 267
MEENAN, J., Economic incentives, **55,** 267
MERCER, Dr. E. H., Electron microscope and cancer, **55,** 266
Microtome, vasculum and, Prof. D. A. Webb, **55,** 183, 273
Migration of birds at Great Saltee, Maj. R. F. Ruttledge, **55,** 273
MILL, C. K., Science and Industry Committee, discussion of report, **55,** 267
MILSTED, Dr. J., Element 102, **55,** 264
Mining development in Ireland, Prof. M. A. Hogan, **55,** 267
MISSEN, L. R., Education of the Countryman, **54,** 131, **55,** 272
MITCHELL, Dr. G. H., Ordovician Volcanoes, **54,** 34, **55,** 265
MOONEY, O. V., Pinus contorta, **55,** 272
MOORE, Rev. J. J., Irish boglands, **55,** 271
MORRISON, J. R., Bilingualism : psychological aspects, **55,** 272, **56,** 287
MORRISON, M. E. S., Ecology of raised bog in Co. Tyrone, **55,** 271
MUNRO, Dr. Joan, Sleep in sheep, **55,** 273
MURGATROYD, R. J., Cloud physics investigations from aircraft, **55,** 263
MURPHY, G. J., Mid-Ordovician vulcanicity in S.E. Ireland, **55,** 265
MURRELL, K. F. H., Age and industrial performance, **55,** 270

NASH, Prof. E., Economic problems of Caribbean, **55,** 267
Natural plant growth substances, **55,** 271
auxin and flower sexuality, Prof. J. Heslop Harrison, **55,** 271
hormones and fruit tree growth, H. W. B. Barlow, **55,** 271
in tropic responses of shoots, Prof. T. A. Bennet-Clark, **55,** 271
in rootgrowth, Prof. L. J. Audus, **55,** 271
Nature conservation and human ecology, M. Ó Ruadháin, **55,** 273
Nervous system, **54,** 48, **55,** 265, **57,** 449
evolution of organisation, Prof. J. Z. Young, **54,** 48, **55,** 265, **57,** 449
function, analysis of, Dr. J. W. S. Pringle, **55,** 265, **57,** 449
in insects, Dr. D. M. Vowles, **55,** 265, **57,** 449
Nervous system—*continued*
in primitive vertebrates, Dr. H. P. Whiting, **55,** 265, **57,** 449
structure and function, M. J. Wells, **55,** 265, **57,** 449
theories of function, W. K. Taylor, **55,** 265, **57,** 449
touch discrimination in the octopus, Dr. M. J. Wells, **55,** 265, **57,** 449
NEVILL, Dr. W. E., Carboniferous stratigraphical palaeontology of Irish midlands, **55,** 265

OAKLEY, C. A., Incentives and communications in industry, **55,** 270
O'BRIEN, M. V., Economic geology of Ireland, **55,** 264, **56,** 349
O'CALLAGHAN, J., Crop conservation practice, **55,** 268
O'CEALLAIGH, S., Education for commerce and management in Ireland, **55,** 272
Ocean floor, exploration of, **55,** 263
by bathyscaph, Dr. Robert S. Deitz, **55,** 263
by echo-sounder and camera, Dr. A. S. Laughton, **55,** 263
neutron activation analysis of ' cosmic ' spherules from marine sediments, A. A. Smales, **55,** 263
seismic prospecting, R. D. Adams, **55,** 263
O'DANACHAIR, Capt. C., Ancient agriculture in Ireland and N.W. Europe, **56,** 365
house and farmyard, **55,** 268
O'DOHERTY, Rev. Prof. E. F., Bilingualism : educational aspects, **55,** 272, **56,** 282
Officers and Council of the British Association, 1957, **54,** 2
1957–58...**55,** 152
1958...**57,** 394
O'HARE, P. J., Peatland in Irish agriculture, **55,** 273, **57,** 405
O'KELLY, Prof. M. J., Ancient Irish method of smelting iron, **55,** 268
OPIE, P., Folklore studies in England and Wales, **55,** 269
ÖPIK, Dr. E. J., Artificial satellites, **55,** 263
Ó RÍORDÁIN, B., Ancient Ireland (ii) craftsmanship and art, **55,** 268
Ó RUADHÁIN, M., Human ecology and nature conservation, **55,** 273
Ó SULLIVAN, S., Folklore in Ireland and Isle of Man, **55,** 268

PAKENHAM, Lord, Science and Industry Committee, discussion of report, **55,** 267
PAOR, Dr. M. de, Early Christian Irish metalwork, **55,** 268
Tara, **55,** 268
Parasitic worms, **55,** 266
helminth biology, ' in vitro ' approach to, Prof. J. D. Smyth, **55,** 266
helminths, migrations of, Prof. R. M. Gordon, **55,** 266
human beef tape-worm, Dr. P. H. Silverman, **55,** 266
Schistosoma mansoni, ' in vitro ' studies on, D. L. H. Robinson, **55,** 266
PARKER, R. E., Ecological problems in afforestation of peat land in N. Ireland, **55,** 271
PARKES, J. W., Fertiliser industry in Ireland, **55,** 264, **56,** 336
PARKIN, K. F., Afforestation of peatlands in N. Ireland, **55,** 271
PATERSON, R., Influence of machinery developments on farm organisation, **55,** 268
PATTON, T. P., Sensory sensitivity and auxiliary stimulation, **55,** 271
Peat and peat afforestation, ecology of, **55,** 271
afforestation in N. Ireland, K. F. Parkin, **55,** 271
ecological probiems, R. E. Parker, **55,** 271
Irish boglands, Rev. J. J. Moore, **55,** 271
raised bog in Co. Tyrone, M. E. S. Morrison, **55,** 271
PEATE, Dr. I. C., Irish folk-life, **55,** 268
folklore studies in Wales, **55,** 269
Peatland in Irish agriculture, Dr. T. Walsh, E. Quinn, P. J. O'Hare, **55,** 273, **57,** 405
Perception and skill, **55,** 270, 271, **57,** 458
attention in skill, D. E. Broadbent, **55,** 270, **57,** 460
auditory and visual information, R. Davis, **55,** 270, **57,** 458
Israeli Kibbutz, Miss C. Bateson, **55,** 271
mechanisms which learn from past experience, Dr. A. M. Uttley, **55,** 270

Perception and skill—*continued*
perception of movement and depth phenomena, Dr. J. L. Zajac, **55,** 271
perceptual experiments using synthetic speech, P. Ladefoged, D. E. Broadbent, **55,** 270
perceptual organisation, J. Annett, **55,** 270, **57,** 462
sensory sensitivity and auxiliary stimulation, T. P. Patton, **55,** 271
stimulus characteristics for visual tasks, Dr. J. A. Leonard, **55,** 270
Percolation processes, J. M. Hammersley, **55,** 263
Perthshire, metamorphic zones in, Dr. N. Rast, B. A. Sturt, A. L. Harris, **55,** 265
Photosynthesis, **55,** 272. **57,** 395, 441
actual and potential yields, Dr. G. E. Fogg, **55,** 272, **57,** 395
bacteria, Dr. S. R. Elsden, **55,** 272
chemical mechanism, Dr. C. P. Whittingham, **55,** 272, **57,** 441
Physics of cloud and rain, **55,** 263
investigations from aircraft, R. J. Murgatroyd, **55,** 263
rain and rain-making, Dr. B. J. Mason, **55,** 263
seeding experiments in Australia, W. Macklin, **55,** 263
PITCHER, Dr. W. S., Dalradian rocks in N.W. Donegal, **55,** 265
Plant and animal cells, particles in, Miss R. J. A. Kirkland, **56,** 353
Podorarpaceae, systematics of, Prof. R. Florin, **55,** 271
Polymers, making and breaking, **55,** 264
mechanico-chemistry of, Dr. L. Bateman, **55,** 264
plastics for use: molecules for particular purposes, Dr. C. W. Bunn, **55,** 264
polypeptides as models for natural proteins, Dr. C. H. Bamford, **55,** 264
stereospecific polymerisations, Prof. H. F. Mark, **55,** 264
POPJÁK, Dr. G. J., Biogenesis of sterols, **55,** 264
POYNTON, Miss V., Round Dublin in steps of a marine biologist, **55,** 273
PRINGLE, Dr. J. W. S., Analysis of nerve function, **55,** 265, **57,** 449
PRINGLE, Dr. M. L. Kellmer, Learning difficulties of deprived children, **55,** 270
Proposed developments, a review, **55,** 259
PROTHERO, R. Mansell, Population mapping in underdeveloped area, **55,** 267
PROUDFOOT, Dr. V. B., Ancient Irish field systems, **55,** 268, **56,** 369
peat and peat-soils in N. Ireland, **55,** 267
Psychologist in the community, **55,** 270
challenge to, Dr. G. Seth, **55,** 270
in Child Guidance Service, Dr. J. McKenna, **55,** 270
in education, Dr. W. D. Wall, **55,** 270
in Health Services, Miss M. A. Davidson, **55,** 270
in industry, Dr. C. B. Frisby, **55,** 270
Psychology, clinical, and related topics, **55,** 269
drugs, psychological effects, Dr. H. Steinberg, **55,** 269
insight, projective test of, Dr. P. J. R. Dempsey, **55,** 269
sodium amytal and extraversion, Dr. S. G. Laverty, **55,** 269
PUTMAN, J. L., Physical basis of radioactivity, **55,** 271

QUINLAN, Prof. P. M., Solution of non-linear differential equations by Step functions, **55,** 264
QUINN, E., Peatland in Irish agriculture, **55,** 273, **57,** 405

Radiation and biology, **55,** 271
hazards and benefits to health, Dr. N. G. Trott, **55,** 271
induced mutations in crop improvement, R. M. H. Whitehouse, **55,** 271
and mutation in man, levels of, Dr. T. C. Carter, **55,** 271
physical basis of, J. L. Putman, **55,** 271
RAFTERY, Dr. J., Crannog research in Ireland, **55,** 268
Rainfall-runoff studies, Irish contributions, J. C. I. Dooge, **55,** 267
RAST, Dr. N., Metamorphic zones in Perthshire, **55,** 265
READ, Prof. H. H., Caledonian and Donegal granite series, **55,** 264
Reasoning in rats, S. W. Antony, **55,** 270
RENOUF, Dr. L. lePage, Further changes at Lough Ine, **55,** 266
RENSHAW, Dr. T., Education as a science, **55,** 270
Research Committees, 1957–58...**55,** 176
RITCHIE, J. N., Animal health in relation to Britain's food supplies, **55,** 273, **57,** 431.
ROBINSON, D. L. H., 'In vitro' studies on Schistosoma mansoni, **55,** 266
ROBINSON, Sir Robert, Biogenesis or structural relations: the organic chemist's contribution, **55,** 264
ROWLEY, D. J., Equivalent circuits, **55,** 268
ROY, Dr. J. H. B., Nutrition of early weaned calf, **55,** 269, **57,** 428
RUTTLEDGE, Maj. R. F., Migration of birds at Great Saltee, **55,** 273

Salmon, biology of, **55** 266
in Ireland, age and growth, Miss E. Twomey, **55,** 266
in River Shannon, Dr. A. E. J. Went, **55,** 266
in sea around Ireland, E. D. Toner, **55,** 266
and sea trout, migration of, A. Swain, **55,** 266
SANDERSON, S. F., Folklore studies in Scotland, **55,** 269
SAUNDERS, Prof. O. A., Engineering problems associated with heat transfer, **55,** 267
Savannas of Brazil, Dr. Monica Cole, **55,** 267
Science and Industry Committee report, **55,** 261
discussion, S. Lemass, Prof. C. F. Carter, Lord Pakenham, C. K. Mill, **55,** 267
Science by the upper form, **55,** 273
bird reserves, J. R. Tinker, **55,** 273
Callam of Maynooth, Rev. Dr. J. D. Gallivan, **55,** 273
Dublin neighbourhood, geological tour, Miss C. D. Smyth, **55,** 273
in Irish schools, Rev. Dr. M. T. Casey, **55,** 273
round Dublin in steps of a marine biologist, Miss V. Poynton, **55,** 273
Sectional transactions, **55,** 263
Sedimentation and sedimentary structures, **55,** 265
intraformational disturbances, Prof. P. G. H. Boswell, **55,** 265
and slumping in Namurian of Co. Clare, Prof. W. D. Gill, **55,** 265
Torridonian, Dr. J. E. Hemingway, **55,** 265
Seismological investigations, **55,** 239
SERGEAN, R., Decision-taking and presentation of information, **55,** 270
SESHADRI, Prof. T. R., Biogenesis of natural products, **55,** 264
SETH, Dr. G., Challenge to psychology, **55,** 270
SHACKLETON, Prof. R. M., Connemara schists, **55,** 265
SHELFORD, Capt. W. O., Modern diving apparatus, **55,** 269
SHIMMIN, Miss S. B. N., Workers' understanding of incentive payment systems, **55,** 270
Silurian sedimentation and faunas in northern Co. Tipperary, Dr. R. N. Cope, **55,** 265
SILVERMAN, Dr. P. H., Biology and control of human beef tape-worm, **55,** 266
Sleep in sheep, Dr. Joan Munro, **55,** 273
SMALES, A. A., Neutron activation analysis of 'cosmic' spherules from marine sediments, **55,** 263
SMITH, Dr. Stuart, Aggressive displays of birds, **55,** 266
SMYTH, Miss C. D., Geological tour in Dublin neighbourhood, **55,** 273
SMYTH, Prof. J. D. 'In vitro' approach to helminth biology, **55,** 266
Social concomitants of achievement in training and education, **55,** 270
home environment, Dr. S. Wiseman, **55,** 270
learning difficulties of deprived children, Dr. M. L. Kellmer Pringle, Miss V. Bossio, **55,** 270
school environment, Dr. F. W. Warburton, **55,** 270
training of R.A.F. boy entrants, A. B. Cherns, K. W. Tilley, **55,** 270
Solar magnetograph, Dr. H. von Klüber, **55,** 263
Solar radiation from rockets, Dr. R. L. F. Boyd, **55,** 263
STEINBERG, Dr. H., Psychological effects of drugs, **55,** 269
Stellar energy and stellar evolution, Prof. T. G. Cowling, **54,** 13, **55,** 263
STEPHENS, N., Evolution of coastline of north-east Ireland, **55,** 267, **56,** 389
STEPHENS, W. H., Advances in aeronautics, **55,** 268
Sterols, biogenesis of, Dr. G. J. Popják, **55,** 264
STEWART, Dr. A., Development of modern dairy cow, **55,** 273
Stiffening effects of two-edge beams, J. A. N. Lee, **55,** 268
STURT, B. A., Metamorphic zones in Perthshire, **55,** 265
SWAIN, A., Downstream migration of salmon and sea trout, **55,** 266
SYNGE, Prof. J. L., How stands the theory of gravitation today? **55,** 207, 263

TAYLOR, Dr. H. J., Physiological problems in diving and underwater swimming, **55,** 269
TAYLOR, W. K., Functioning of nervous system investigated by an electronic analogue computer, **55,** 265, **57,** 449
Technical assistance and idealism, Alec Dickson, **55,** 177, 272
Technical progress, agricultural co-operation and, Sir Frederick Brundrett, **55,** 201, 273
Technology and world advancement, Prof. P. M. S. Blackett, **54,** 3
Tele-communications, developments in, R. J. Halsey, **55,** 268
Thermonuclear reactions, industrial applications, **55,** 263
controlled thermonuclear reactions, Sir George Thomson, **55,** 263
nuclear fusion as a possible source of power, J. D. Lawson, **55,** 263
THOMAS, Sir Ben Bowen, Administrator's approach to bilingual educational policy, **55,** 272, **56,** 282
THOMPSON, G. B., Folk culture and the people, **55,** 273
THOMSON, Sir George, Controlled thermonuclear reactions, **55,** 263
THORPE, Dr. W. H., Cambridge university ornithological field station at Madingley, **55,** 266
TIERNEY, Prof. J. J., Celts and classical historians, **55,** 269
TILLEY, K. W., Social factors in training of R.A.F. boy entrants, **55,** 270
TINBERGEN, Dr. N., Begging response of chicks of Black-headed Gull, **55,** 266
TINKER, J. R., Bird reserves, **55,** 273
TIVY, Dr. Joy, South Uist: Scottish congested district, **55,** 267
TONER, E. D., Movements of salmon in sea around Ireland, **55,** 266
Training of women and girls for scientific technological and technical work, Mrs. C. E. Arregger, **55,** 272
Treasurer's Statement and Account 1956–57, **55,** 230
TROTT, Dr. N. G., Radioactivity—hazards and benefits to health, **55,** 271
TURNER, Sir James, Agriculture in the national economy, role of, **54,** 141, **55,** 272
TWOMEY, Miss E., Age and growth of salmon in Ireland, **55,** 266

Underdeveloped countries: some aspects of their problems, A. D. Knox, **55,** 267, **56,** 341
Underdeveloped lands, geography of, **55,** 267
Industrial concentration v. regional stability, P. Haggett, **55,** 267
problems of population mapping, R. Mansell Prothero, **55,** 267
Underwater swimming and diving, **55,** 269
modern diving apparatus, Capt. W. O. Shelford, **55,** 269
physiological problems, Dr. H. J. Taylor, **55,** 269
summing up, F. Dumas, **55,** 269
Urban land use, economic aspects, Prof. E. M. Fisher, **55,** 267
UTTLEY, Dr. A. M., Mechanisms which learn from past experience, **55,** 270

Vasculum and microtome, Prof. D. A. Webb, **55,** 183, 273
Viruses, Dr. P. Clinch, **55,** 272
VOWLES, Dr. D. M., Structure and function in insect nervous system, **55,** 265, **57,** 449
Vulcanicity, lower palaeozoic, **55,** 265
Granite-Diorite complex in Tyrone Igneous series, N. S. Angus, **55,** 265
Vulcanicity—*continued*
mid-Ordovician, G. J. Murphy, **55,** 265
Ordovician in E. Ireland, Dr. J. C. Harper, **55,** 265
Ordovician volcanoes, Dr. G. H. Mitchell, **54,** 34, **55,** 265

WALL, Dr. W. D., Psychologist in education, **55,** 270
WALSH, Dr. T., Chemical evaluation of soil fertility, **55,** 264, **56,** 335
peatland in Irish agriculture, **55,** 273, **57,** 405
WARBURTON, Dr. P. W., Educational attainment and social factors: school environment, **55,** 270
WATTS, W. A., Interglacial deposits at Kilbeg and Newtown, **55,** 271
WEAVING, John, Migration of birds at Great Saltee (film), **55,** 273
WEBB, Prof. D. A., Atlantic species with disjunct areas, **55,** 271
vasculum and microtome, **55,** 183, 273
WELLS, Prof. G. P., Temperature and geographical distribution of lugworms, **55,** 266
WELLS, M. J., Nerve structure and function, **55,** 265, **57,** 449
touch discrimination in octopus, **55,** 265, **57,** 449
WENT, Dr. A. E. J., Fishes in Irish history, **55,** 273
salmon investigations in River Shannon, **55,** 266
WEST, Dr. R. G., English glacial and interglacial periods, **55,** 271
WHEELER, Prof. T. S., Biogenesis of flavonoids, **55,** 264
Whitehall, economist in, I. M. D. Little, **55,** 267
WHITEHOUSE, R. M. H., Radiation-induced mutations in crop improvement, **55,** 271
WHITING, Dr. H. P., Organisation of nervous system in primitive vertebrates, **55,** 265, **57,** 449
WHITTINGHAM, Dr. C. P., Chemical mechanism of photosynthesis, **55,** 272, **57,** 441
WHITTOW, J. B., Structure of southern Irish Sea area, **55,** 267, **56,** 381
WIDDOWSON, Dr. E. M., Physiology of new-born animal, **55,** 269, **57,** 417
WIGNALL, R. S., Recent trends in electric traction, **55,** 268
WILLIAMS, Prof. A., Implications of brachiopod migration during Ordovician times, **55,** 265
WISEMAN, Dr. S., Educational attainment and social factors: home environment, **55,** 270
Worker and his work, Dr. H. G. Maule, **54,** 109, **55,** 270

Yeast, biology of, **55,** 271
cell structure and function, Prof. E. J. Conway, **55,** 271
fermentation, biochemistry of, Dr. R. Davies, **55,** 271, **57,** 401
fermentation techniques, R. B. Gilliland, **55,** 271
genetics, Prof. D. G. Catcheside, **55,** 271
YOUNG, Prof. J. Z., Nervous system, evolution of organisation within, **54,** 48, **55,** 265, **57,** 449

ZAJAC, Dr. J. L., Perception of movement and depth phenomena, **55,** 271
Zoology, **55,** 266
Lough Ine, further changes at, Dr. L. lePage Renouf, **55,** 266
lugworms, temperature and geographical distribution of, Prof. G. P. Wells, **55,** 266
marine annelid worms, spawning stimulus in, D. I. D. Howie, **55,** 266
New Zealand glow-worm, Prof. J. Brontë Gatenby, Mrs. Gouri Ganguli, **55,** 266